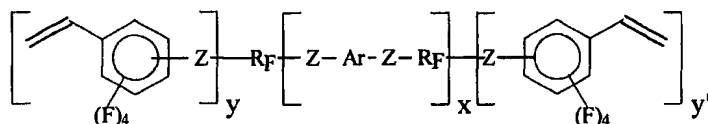


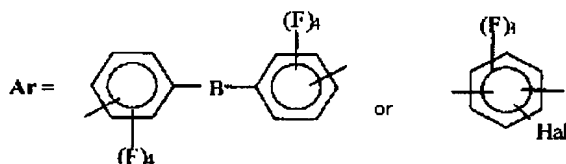
What is claimed is:

1. A fluorine compound having perfluorostyrene introduced at a terminal thereof, as represented in the following Formula 1:

Formula 1

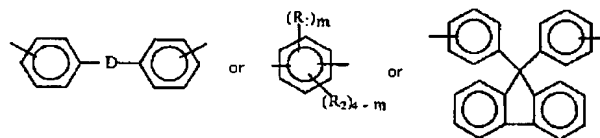


Wherein Z is O or S; R_F is an aliphatic or aromatic group; y is a natural number of 1-10; y' is an integer of 0-1; x is an integer of 0-200; and



Wherein B is a single bond or selected from the group consisting of $-CO-$, $-SO_2-$, $-S-$ and $-O-$; and Hal is selected from the group consisting of F, Cl, Br and I.

2. The fluorine compound as defined in claim 1, wherein y and y' are 1, and R_F is $-CH_2(CF_2)_nCH_2-$, $-CH_2CF_2O(CF_2CF_2O)_nCF_2CH_2-$, or

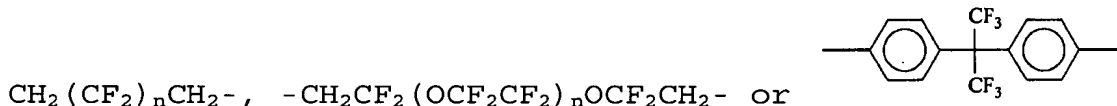


$CH_2CF_2O(CF_2CF_2O)_nCF_2CH_2-$, or

Wherein n is a natural number of 1-12; D is selected from the group consisting of $-C(CF_3)_2-$, $-C(CH_3)_2-$, $-CO-$, $-SO_2-$, $-O-$ and $-S-$; R_1 and R_2 are independently selected from the group consisting of H, or halogen elements, including F, Cl, Br and I; and m is a natural number of 1-3.

3. The fluorine compound as defined in claim 2, wherein Z is O, and x is an integer of 2-50.

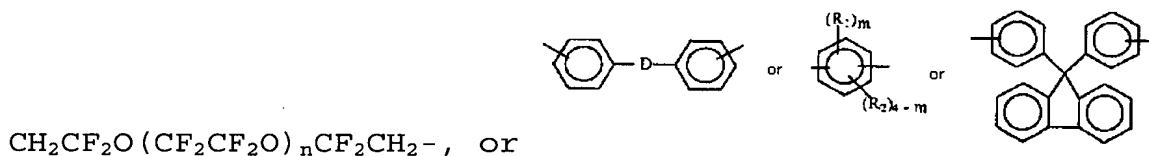
4. The fluorine compound as defined in claim 3, wherein Ar is halogenated pentafluorobenzene, and R_F is -



5. The fluorine compound as defined in claim 1, wherein y is a natural number of 1-10, and x and y' are 0.

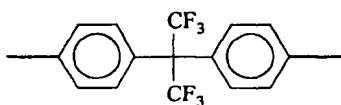
6. The fluorine compound as defined in claim 5, wherein y is 1, and R_F is a substituted or unsubstituted alkyl group.

7. The fluorine compound as defined in claim 5, wherein y is 2, and Z is O, and R_F is -CH₂(CF₂)_nCH₂-, -

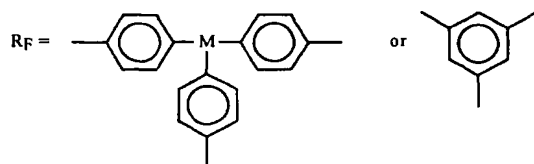


Wherein n is a natural number of 1-12; D is selected from the group consisting of -C(CF₃)₂-, -C(CH₃)₂-, -CO-, -SO₂-, -O- and -S-; R₁ and R₂ are independently selected from the group consisting of H, or halogen elements, including F, Cl, Br and I; and m is a natural number of 1-3.

8. The fluorine compound as defined in claim 7, wherein R_F is -CH₂(CF₂)_nCH₂-, -CH₂CF₂(OCF₂CF₂)_nOCF₂CH₂-, or



9. The fluorine compound as defined in claim 5, wherein y is 3, and R_F is

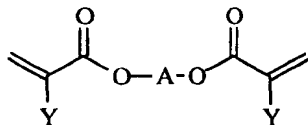


Wherein M is selected from the group consisting of $C-CH_3$, $C-CF_3$, $C-CCl_3$, $C-CBr_3$, N , P and $P=O$.

10. The fluorine compound as defined in claim 5, wherein y is a natural number of 4-10, and $-Z-R_F$ is an aromatic or aliphatic polyol.

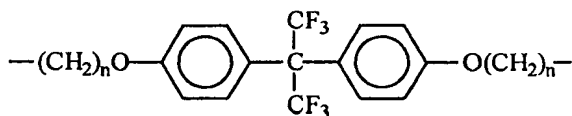
11. A polymer coating solution, comprising at least one fluorine compound selected from the group consisting of fluorine compounds having perfluorostyrene introduced at a terminal thereof of claim 1, at least one acrylate compound selected from the group consisting of acrylate compounds represented by the following Formula 7, and a photoinitiator:

Formula 7



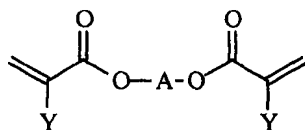
Wherein A is a fluorinated aliphatic or aromatic group, and Y is H or CH_3 .

12. The polymer coating solution as defined in claim 11, wherein A is $-CH_2(CF_2)_nCH_2-$, $-CH_2CF_2(OCF_2CF_2)_nOCF_2CH_2-$ or



13. A polymer coating solution, comprising 30-70 wt% of at least one fluorine compound selected from the group consisting of fluorine compounds having perfluorostyrene introduced at a terminal thereof of claim 1, 30-70 wt% of at least one acrylate compound selected from the group consisting of acrylate compounds represented by the following Formula 7, and 0.5-4 wt% of a photoinitiator:

Formula 7



Wherein A is a fluorinated aliphatic or aromatic group, and Y is H or CH₃.

14. An optical waveguide device, comprising a lower cladding layer formed on a planar substrate, a core layer formed on the lower cladding layer, and an upper cladding layer formed on the core layer, wherein the core layer and the lower and upper cladding layers include the fluorine compound of any one of claims 1 to 10.

15. An optical waveguide device, comprising a lower cladding layer formed on a planar substrate, a core layer formed on the lower cladding layer, and an upper cladding layer formed on the core layer, wherein the core layer and the lower and upper cladding layers include the coating solution of claim 11 or 12.